

R E M A R K S

This amendment is in response to the Office Action dated April 15, 2008. Claims 11 – 13 are amended. 1 - 15 are in the application upon entry of the amendment.

The rejection of claims 11 – 13 under § 112, second paragraph, as being indefinite has been overcome by the foregoing amendment.

Applicants respectfully traverse the rejection of claims 1 – 10 under § 103(a) as being unpatentable over Javdani et al. in view of Ueda et al.. More specifically, Javdani teaches a process for the purification of NMSBA - a precursor of mesotrione - which when subsequently used to produce mesotrione generally results in mesotrione containing reduced amounts of undesirable impurities. However, the Javdani process does not guarantee that the mesotrione subsequently produced from the purified NMSBA is free from, or has sufficiently low levels of, these undesired impurities (as mentioned on pages 1/2 of the present application). It is this problem which is addressed by the present invention.

Recognizing the deficiencies of Javdani, the Examiner cites Ueda and suggests that "Ueda teaches a process for the preparation of 4,4,5-trimethyl-2-(2-nitro-4-methylsulfonylbenzoyl) cyclohexane-1,3-dione which is useful as a herbicide and reduction of the levels of undesirable impurities in the compound. See column 3, example 1". Applicants note that example 1 appears to be a "standard" synthesis process for triketones- certainly there does not appear to be any specific mention of reducing undesired impurities.

Accordingly, Applicants respectfully submit that the Examiner's finding of *prima facie* obviousness is incorrectly determined - as each of the elements of the process of the present invention - as discussed further below - are not specifically taught.

In particular, the purification process of the presently claimed invention requires that a mesotrione enolate be formed - then purification - then crystallisation of the mesotrione. Neither Javdani nor Ueda disclose or suggest formation and subsequent purification of a mesotrione enolate. In the Office Action the Examiner notes that the formation of the enolate is an intermediate product of the reaction of cyclohexanedione and NMSBC. This may be the case - but purification of the enolate is neither taught nor suggested.

The Examiner will appreciate that, while the combined teachings of Javdani and Ueda may relate generally to mesotrione, such combination does not suggest instant process. Javdani teaches in column 1 that NMBSA can be reacted with phosgene to form a corresponding acid chloride. Ueda column 3, example 1 discloses a process wherein such an acid chloride can be used to prepare a triketone herbicide, but not mesotrione. However, this teaching provides one of ordinary skill with no reasonable expectation that NMSBA produced by the process for the purification of NMSBA of Javdani could be utilized in the process of Ueda to obtain a purified mesotrione, let alone that a mesotrione enolate be formed.

Thus, even if one of ordinary skill were to combine the prior art teachings in the manner suggested by the Examiner, such combination would not result in the presently claimed invention. Accordingly, it is submitted that the claims are not obvious in view of the prior art references cited by the Examiner. Reconsideration and withdrawal of the § 103 rejection of claims 1 – 10 are respectfully requested.

Applicants traverse the provisional rejection of claims 1 – 5 under judicial doctrine as being unpatentable over claims 1 – 8 of copending application 10/598,993. As noted above, the presently claimed process requires that a mesotrione enolate be formed. This is not obvious over claims 1 – 8 of the '993 application whether taken alone or in view of Benke et al. Nevertheless, a terminal disclaimer will be taken under advisement once allowable subject matter has been identified in claims 1 – 5 herein.

Applicants note with appreciation that claims 14 – 15 are deemed allowable over the prior art of record.

Application No. 10/573,723
Response Dated July 15, 2008
Reply to the Office action of April 15, 2008

In view of the foregoing amendments and remarks, Applicants submit that the subject matter of the claims is patentable and that such claims are in condition for allowance. Reconsideration and withdrawal of all rejections are respectfully requested, along with the issuance of a Notice of Allowance.

Respectfully submitted,

USPTO Customer No. 26748
Syngenta Crop Protection, Inc.
Patent and Trademark Dept.
410 Swing Road
Greensboro, NC 27409
(336) 632-7706

/William A. Teoli, Jr./
William A. Teoli, Jr.
Attorney for Applicants
Reg. No. 33,104

Date: July 15, 2008